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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,274	01/16/2002	Nadarajah Asokan	4208-4059	3145

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MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

EXAMINER	
SZYMANSKI, THOMAS M	
ART UNIT	**PAPER NUMBER**
2134	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,274	ASOKAN ET AL.	
	Examiner	Art Unit	
	Thomas Szymanski	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6-8,11-13 and 19-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6-8,11-13 and 19-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/28/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 2, 4, 6, 7, 8, 11, 12, 13, and 19-22 have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4, 6, 7, 8, 11, 12, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al U.S. Patent No. 6,331,972, and further in view of Lee et al U.S. Patent No. 6,018,717.

4. Lee et al teaches the use of a smartcard with another electronic device for the purpose of storage and authentication but fails to teach the involved electronic device as a personal communication device.

5. Harris et al teaches the use of a personal communication device and authorization of usage of such a device.

6. It is desirable within any system to have authentication capabilities, but when those services are slow it can be cumbersome (Harris Col 1 lines 34-50, Col 2 lines 5-11). Therefore, any means that can provide better efficiency in this process is always an added advantage. Furthermore within a portable device storage is always at a premium so the ability to provide additional storage is a desirable attribute (Lee Col 1 lines 12-20, 53-67).

7. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the system of Harris et al with that of Lee et al for the advantages of added portable storage and increased efficiency in authenticating as could be provided by implementing the smart card system of Lee et al into the portable device of Harris et al.

8. Regarding Claims 1 and 20: A secure module and a first tamper resistant read-only storage device in a personal communication device (Lee Fig 2.60,40, 1.18, Fig 2.64 Col 5 line 64 - Col 6 line 17, Harris Fig 26, Col 8 lines 35-45, 50-55) Within the combination of these two systems some of the systems of Lee are incorporated into the personal communication device of Harris et al. as is necessary for the functionality of the combination. In this case the secure module is represented by the access device and terminal. As shown the security card within the terminal is a secure module that contains storage. As exemplified by the card of figure 1 the first storage is contained on a security card that operates in the same manner by using the provided operating system located on the ROM to perform its functions.

Second read-write, tamper resistant storage device in a removable electronic card (Lee Fig 1.16, Col 4 line 65 – Col 5 line10, Col 5 line 64 - Col 6 line 15) As shown the consumer card contains storage and is external to the communication device

Third read-write insecure storage device in the electronic card (Lee Fig 1.20, Col 4 line 65 – Col 5 line10) As shown the card contains storage

Processor (Harris Fig 26, Lee Fig 1, 2, 3) The system of the combination contains Processors in both the personal communication device (PCD) and in the smartcard that are in communication with the various storage devices of the system.

Authenticate second storage device by secure module (Lee Fig 3-7, Col 5 line 64 - Col 6 line 15, Col 7 lines 24-42, 55-62, Col 8 lines 33-44, Harris Fig 6) As stated the card, which the storage devices are a part, is authenticated via the terminal (secure module), which is the PCD.

Issue a create counter request by the secure module to the second storage device (Col 12 lines 29-65) As stated by Lee the card, upon request by the device, increments a counter and forwards information, wherein, the counter value is created upon an initial transaction and re-created or updated upon subsequent transactions.

Send a unique ID identifying a current counter value from the second storage device to the secure module; Compute an encrypted envelope of the unique ID with the second module by applying a cryptographic transform to the unique ID; Write a state value and the encrypted envelope of the unique ID to the third storage device (Lee Fig 1.24, Col 16 line 10 – 67, Col 8 lines 33-44, Col 9 lines 52-64) Lee demonstrates that all of the information necessary is read from the card during the authentication process. As it can be seen the counter value information is necessary information for being able to know if the card is authenticate and still contains a valid state for authentication. Lee et al teaches incrementing a counter value within the memory of the card upon completion of authentication. Furthermore, cryptographic transforms are applied to the transaction data with a session key and sent between the card and device.

9. Regarding Claim 4: Second and third storage devices are external read-write memory devices (Lee Fig 1.16,20) The card is external to the PCD and the stated memories are of a type that is read-write that being RAM and Non-volatile.

10. Regarding Claim 6: Second and Third storage devices are within a removable electronic card that is received by the personal communication device (Lee Fig 1.16, 1.20, Fig 3) The second and third storage as stated above are contained within the card and furthermore as denoted by the figure are received by the terminal (PCD).

11. Regarding Claims 7 and 8: Communication between the processor, secure module, second, and third storage devices comprises a plurality of protocols using an OS of the PCD (Lee Figs 3-9, Harris Figs 6, 10-38) As defined by The American Heritage dictionary a protocol is a standard for regulating data transmission between computers. Within the system of Lee and Harris there is a standard language that is understood for the communication of the two devices to occur. This standard as is necessitated by the functions of the device provides for protocols that are designated as a create protocol for the generation of information, read for the instances of reading such information out of memory for authentication, and updating information such as currency values within the system.

12. Regarding Claim 11: Personal communication device is a cellular telephone, satellite phone, PDA, or Bluetooth device (Harris Fig 3, Col 4 lines 23-29, Col 8 lines 35-45, 51-55, Col 14 lines 15-21)

13. Regarding Claim 21: Receiving a compliance certificate and public key from second storage (Lee Figs 5-6, Col 6 lines 4-12, Col 10 lines 41-53, Col 11 lines 1-10, Table 1, lines 41-59, Col 12 lines 29-35, 39-45)
Verifying the authenticity of certificate (Fig 6) As shown above the system provides for authentication via public key certificate authentication, which involves the authentication of a certificate and receiving a key in addition.

14. Regarding Claim 22: Receiving a success or failure indication from third storage device (Fig 5-6, Col 1 lines 40-67, Col 5 lines 35-42, Col 12 lines 50-61) Within the system the writing and changing of information into storage must be verified as within any such device within the art. Without verification of such an event the system would not be able to function in the required manner since writing an update for instance back to the card must occur when a debit is performed if the user removes the card before verification then they could essentially fool the card every time and never experience a reduction in the amount on the card. As it can be seen from this example and those parts cited the system provides for a verification of success or failure.

15. Claims 12 and 19 are a method implementation of the above rejected claims and as such are rejected on the same basis.

16. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al U.S. Patent No. 6,331,972, and Lee et al U.S. Patent No. 6,018,717, as in claim 1 above and further in view of Kamel U.S. Patent No. 6,009,150.

17. Harris et al and Lee et al teach a system as in claim 1 that uses a PIN (Lee Col 1 lines 53-67), but does not explicitly state tracking the number of attempts to correctly enter the PIN.

18. A high level of security is an advantageous feature within any computer system. Furthermore, the detection and aversion of an attempt to access the system by an unauthorized user is even further desirable. (Lee Col 1 lines 53-67, Kamel Col 5 lines 5-20)

19. Kamel teaches the implementation of a counter for the determination of the number of attempts to enter a PIN. Kamel teaches that this is an advantageous feature so that a malicious user cannot use a brute force method of repeated guessing to obtain entry into the system. (Figs 2A-C, Col 4 lines 45-67, Col 5 lines 1-15)

20. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the system of Harris et al and Lee et al in claim 1 above with that of Kamel for the added advantages of improved security as stated above.

Response to Arguments

21. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., The PCD containing no writable memory) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Specifically the applicant points out figure 1 and

paragraph 23 of the disclosure which while disclosing possible novel aspects of the applicant's invention are not claimed features.

22. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. While the applicant has specified details of the two systems that compose the 103 rejection no arguments where given as to the differences between such references and the applicant's claimed invention. The combined system of lee and Harris comprises a portable device including the components of the access system wherein the security card and other components are incorporated into a PCD and the consumer card is presented as a separate entity that is introduced into the PCD for access to said PCD. The applicant has provided no arguments against the combined reference as presented but has presented a piecemeal analysis of the two references.

23. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

24. The applicant's claimed invention while denoting a general state of use of secured transactions with a counter does not distinguish such counter as being patentably distinct from the presented prior art. The applicant has specified within the arguments that the portable device contains no writable storage, however the claim language uses the phrase comprising which leaves the contents of such a device open

ended and only requires that the stated parts exist and does not limit other components from being present.

25. All arguments presented by the applicant are believed to be addressed in the above response and rejection.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of art

disclosed by the references cited and the objections made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

28. Inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas M. Szymanski who can be reached at (571) 272-8574. The examiner's normal working schedule is between the hours 8:00am – 4:30pm (EST), Monday – Friday.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached at (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).